

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Brett Lovejoy (Reg. No. 42,813) on March 04, 2010.
3. The application has been amended as follows:

Claim Amendment

87. **(Currently Amended)** A computer system comprising:

(A) a module for obtaining, using a suitably programmed computer, a plurality of e-mails from one or more remote client computers, wherein the plurality of e-mails are intended for distribution to a plurality of respective remote destinations;

(B) a module for creating, using a suitably programmed computer, a respective data node for each respective e-mail in said plurality of e-mails, wherein each respective data node includes (i) a pointer, wherein the pointer identifies the corresponding respective e-mail in persistent storage, (ii) an identification of the recipient of the respective e-mail, (iii) an identification of the sender of the respective e-mail, (iv) a destination domain of the respective e-mail, and (v) a visit count that tracks a number of attempts made to deliver the respective e-mail;

(C) a module for processing, using a suitably programmed computer, the plurality of data nodes solely within a non-persistent storage comprising a plurality of queues, wherein each

queue in the plurality of queues corresponds to a specific domain, without requiring that information indicative of the e-mails be written to and then read from persistent storage during the processing of the e-mails, wherein said processing (C) comprises, for each respective data node:

- (i) determining a destination domain of the respective data node;
- (ii) adding the respective data node to a queue in the non-persistent storage corresponding to the destination domain of the respective data node when the queue exists in the plurality of queues;
- (iii) creating a queue in the non-persistent storage corresponding to the destination domain and adding the respective data node to the created queue when the queue does not exist in the plurality of queues; and wherein the processing module (C) further comprises instructions for performing a method comprising:
 - (a) selecting a respective queue in the plurality of queues that contains data nodes;
 - (b) retrieving e-mails corresponding to each of the data nodes in the respective queue;
 - (c) finding a remote server corresponding to the destination domain of the respective queue;
 - (d) sending each of the retrieved e-mails corresponding to each of the data nodes in the respective queue to the remote server corresponding to the destination domain of the respective

queue, wherein the sending (d) comprises reconstructing an e-mail in the retrieved e-mails from (i) the data node corresponding to the e-mail in the respective queue

and (ii) the e-mail in persistent storage identified by the pointer to the respective e-mail that is in the data node corresponding to the e-mail,

wherein, when a delivery message is received for a first e-mail in the retrieved e-mails at a time after the sending (d), said module for processing (C) further comprises instructions for:

- (i) pushing the data node corresponding to the first e-mail back onto the respective queue, and
- (ii) incrementing the visit count in the data node corresponding to the first e-mail to account for the failed delivery of the respective e-mail; and

(e) extinguishing the respective queue when all e-mails in the respective queue have been delivered without receiving a delivery failure message.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance. In interpreting the claims, in light of the specification and the applicant's amendments and remarks filed 12/22/2009, and in light of the Examiner's amendment as authorized by the Applicant, the Examiner finds the claimed invention to be patentably distinct from the prior art of record. The prior art does not teach "A computer system comprising: (A) a module for obtaining, using a suitably programmed computer, a plurality of e-mails from one or more remote client computers, wherein the plurality of e-mails are intended for distribution to a plurality of respective remote destinations; (B) a module for creating, using a suitably programmed computer, a respective data

node for each respective e-mail in said plurality of e-mails, wherein each respective data node includes (i) a pointer, wherein the pointer identifies the corresponding respective e-mail in persistent storage, (ii) an identification of the recipient of the respective e-mail, (iii) an identification of the sender of the respective e-mail, (iv) a destination domain of the respective e-mail, and (v) a visit count that tracks a number of attempts made to deliver the respective e-mail; (C) a module for processing, using a suitably programmed computer, the plurality of data nodes solely within a non-persistent storage comprising a plurality of queues, wherein each queue in the plurality of queues corresponds to a specific domain, without requiring that information indicative of the e-mails be written to and then read from persistent storage during the processing of the e-mails, wherein said processing (C) comprises, for each respective data node: (i) determining a destination domain of the respective data node; (ii) adding the respective data node to a queue in the non-persistent storage corresponding to the destination domain of the respective data node when the queue exists in the plurality of queues; (iii) creating a queue in the non-persistent storage corresponding to the destination domain and adding the respective data node to the created queue when the queue does not exist in the plurality of queues; and wherein the processing module (C) further comprises instructions for performing a method comprising: (a) selecting a respective queue in the plurality of queues that contains data nodes; (b) retrieving e-mails corresponding to each of the data nodes in the respective queue; (c) finding a remote server corresponding to the destination domain of the respective queue; (d) sending each of the retrieved e-mails corresponding to each of the data nodes in the respective queue to the remote server corresponding to the destination domain of the respective queue, wherein the sending (d) comprises reconstructing an e-mail in the retrieved e-mails from (i) the data node corresponding

to the e-mail in the respective queue and (ii) the e-mail in persistent storage identified by the pointer to the respective e-mail that is in the data node corresponding to the e-mail, wherein, when a delivery message is received for a first e-mail in the retrieved e-mails at a time after the sending (d), said module for processing (C) further comprises instructions for: (i) pushing the data node corresponding to the first e-mail back onto the respective queue, and (ii) incrementing the visit count in the data node corresponding to the first e-mail to account for the failed delivery of the respective e-mail; and (e) extinguishing the respective queue when all e-mails in the respective queue have been delivered without receiving a delivery failure message.³³ as recited in the Applicant's independent claims. The limitations of the independent claims are allowable subject matter over the prior art, in light of the specification.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferable accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
6. Claims 1-7,9-17,20,22,24,29-32,84 and 87-99 are allowed.

Conclusion

Any inquiry concerning this communication should be directed to Vivek Srivastava at telephone number 571-272-7304.

/Ryan Jakovac/

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Art Unit: 2445

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Supervisory Patent Examiner, Art Unit 2445